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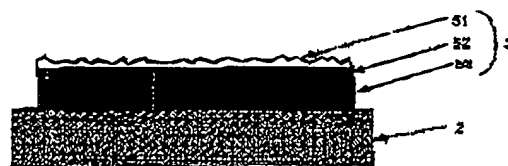
(21)Application number : 08-104466 (71)Applicant : CANON INC
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(54) ELECTRIC FIELD ELECTRON EMITTING ELEMENT, AND MANUFACTURE OF IT

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a very stable emission electric current, by containing at least diamond and fullerene in an emitter part, in an electric field electron emitting element.

SOLUTION: An emitter 3 is constituted of a diamond layer 51, a junction layer 52 containing fullerene, and a conductive layer 53 for electrically connecting between an element electrode 2 and the junction layer 52. When the junction layer 52 has the function of the conductive layer 53, the function of the conductive layer 53, the conductive layer 53 is not necessary. The emitter 3 has diamond on a surface, and the fullerene is joined to at least part of the element electrode 2 or the conductive layer 53. In the electric field emission element, the fullerene is preferably C60 or C70. This can increase the electron emission quantity of the element, and can obtain a long life electric field emission element.



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